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Of the Most Common Weight-loss Programs, Weight Watchers, Jenny Craig, Nutrisystem, and Medifast, which is the most effective?

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Carlson, Jenna, "Of the Most Common Weight-loss Programs, Weight Watchers, Jenny Craig, Nutrisystem, and Medifast, which is the most effective?" (2014). *2014 Awards for Excellence in Student Research and Creative Activity Documents*. 2.
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Question: Of the most common weight-loss programs, Weight Watchers, Jenny Craig, Nutrisystem, and Medifast, which is the most effective?

Abstract

The World Health Organization (WHO) has declared obesity as a global epidemic, estimating 2.3 billion people will be overweight, and 700 million people will be obese by 2015. With the rise in obesity, weight-loss programs are one avenue that consumers are using to battle the epidemic. Approximately 2/3 of adults in the Western population are trying to lose weight or avoid weight gain.

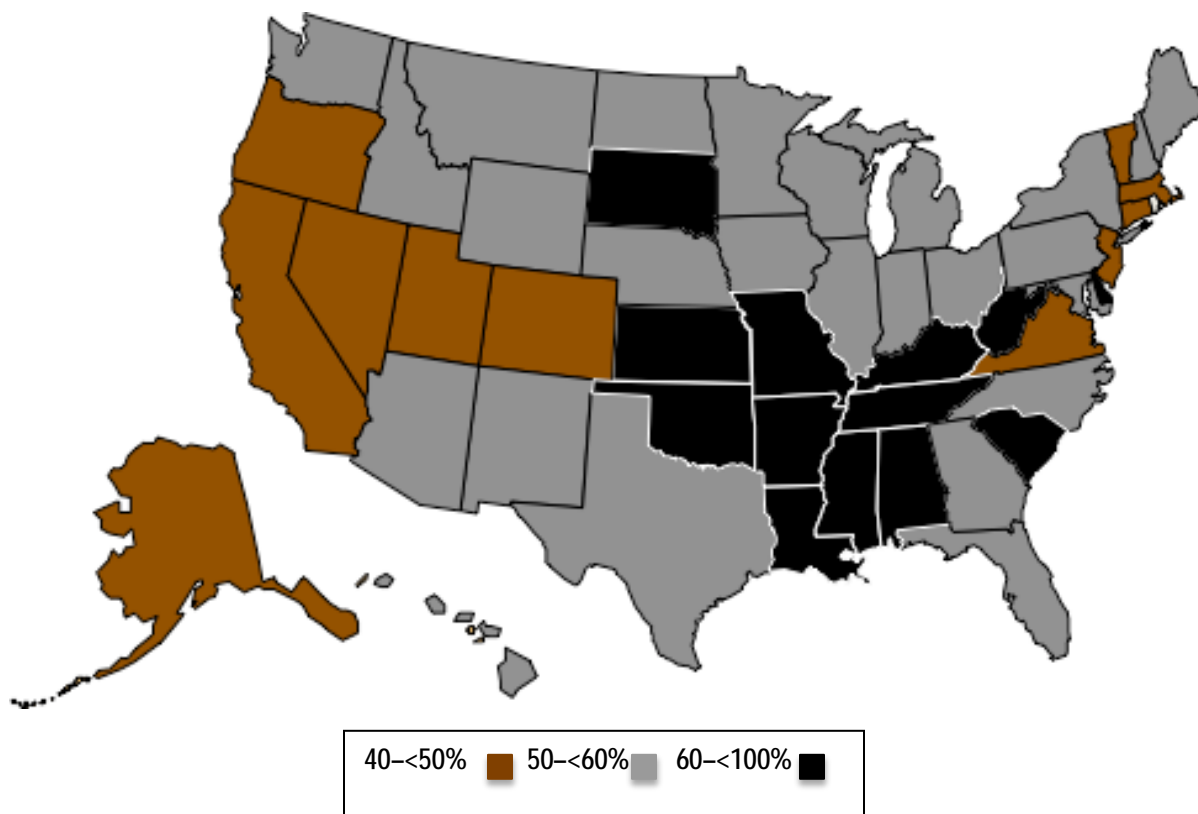
The purpose of this paper is to review the current research of four major weight-loss programs: Weight Watchers, Jenny Craig, Nutrisystem, and Medifast, regarding fundamentals of the programs, the programs safety for consumers use, effectiveness of the programs short-term, and the long-term results available through studies. Weight Watchers and Jenny Craig have similar concepts with food in moderation and exercise, while Nutrisystem and Medifast, were similar in their use of meal replacements. Research showed that commercial diets like Nutrisystem, Jenny Craig, and Medifast are considered unsafe, due to enabling of unhealthy eating behaviors. Weight Watchers is currently one of the only programs that offers published peer-reviewed evidence of weight-loss effectiveness. Due to the lack of data in regards to long-term studies of effectiveness, Medifast, Jenny Craig, and Nutrisystem, have yet to prove their claims to help consumers keep weight off in the long-term.

Promoting the use of weight-loss programs by registered dietitians is not suggested. It is ideal to help individuals integrate exercise and eating in moderation to maintain a healthy lifestyle, because successful weight-loss requires long-term commitment to healthy eating and exercise habits.

Introduction

Obesity is a chronic, complicated, and multifactorial disorder (1, 2). The WHO has now declared obesity as a global epidemic, calculating that there will be 2.3 billion overweight and over 700 million obese adults by the year 2015 (3). If the obesity epidemic continues at this rate it is estimated there will be almost 9 in 10 adults will be overweight or obese by the year 2050 (4). It is well established that obesity is associated with considerable health consequences, which include: diabetes, cardiovascular disease, and some cancers (5-7). Excessive weight currently accounts for 44% of the global burden of diabetes, 23% of coronary heart disease, and 7-41% of some cancers (8). Along with health consequences, obesity also has financial implications to health services and poses as a pronounced threat to public health (9-10).

Obesity Trends* Among U.S. Adults
Projected 2030



Main Findings

With the rise in obesity, one avenue that individuals combat their weight is through weight-loss programs (11). Through media advertising the North American weight-loss industry has reached \$50 billion dollars annually, encompassing claims of products and programs that promise quick, easy, and long-lasting results (2, 12-13). To help increase the popularity of the weight-loss industry, celebrities like Jessica Simpson, Jennifer Hudson, Melissa Joan Hart, and Mariah Carey have joined to show the world what program they use to lose weight (14-16). It has been found that two-thirds of adults in Western populations are trying to lose weight or avoid weight gain (3). Recently, surveys reported that approximately 30-40% of adults are concerned with their weight and report using structured diet (liquid diet supplements, commercial weight-loss diets, or a special diet) to manage weight (3). Some of the most common weight-loss programs today are Weight Watchers, Jenny Craig, Medifast, and Nutrisystem.

Background of Weight-loss Programs

Weight Watchers

Weight Watchers was established in 1961 by Jean Nidetch, after inviting some friends over each week to talk about their weight, and feelings about food, this setting of mutual support and understanding helped the women begin to lose weight (14, 17-20). Today, Weight Watchers is the world's largest support group for weight-loss, hosting over 1.5 million members with over 50,000 meetings in over 30 countries worldwide (14, 19, 21). Weight Watchers focus is being behavioral orientated by including four central aspects: a food plan, an activity plan, a behavior modification plan that uses cognitive reconstructing, and group support (22-23). Today, the heart of Weight Watchers is its food point system; foods are assigned points depending on the calories and fat grams, which increase point value, and fiber grams, which decrease point value, and then

each member is given a range of allowable daily points (14,18, 24). Along with food points, physical activity is encouraged, and members can earn points with exercise that they can use against food points (22). This points system is designed to encourage moderate energy deficit, and weight-loss up to 2lbs/week (22-23). As part of the program, members attend weekly meetings (30-45 minutes), determine their goal weight, participate in a private weigh-in's, and receive informational materials through weekly meetings and eTools (14, 18, 21-23).

Jenny Craig

Jenny Craig was established in 1983 by Australians Sid and Jenny Craig with a mission to help their clients achieve their weight management goals through a behavioral change approach, which includes healthy eating, an active lifestyle, and a balanced approach to living (16-17, 25-26). The Jenny Craig program offers two plans, *Jenny In Center* and *Jenny Anywhere* with weight management recommendations that are developed by registered dietitians in consultation with a multidisciplinary medical advisory board to help participants lose 1-2 pounds per week (16, 26-27) through an energy-reduced diet of 1200-2000 kcal/day. These plans include prepackaged food items with meals incorporating fruits, vegetables, and whole grains to decrease energy density of the diet (20, 25). The Jenny Craig program membership also includes weekly one-on-one meetings with trained consultants who help to tailor the program to the members' food, menu, and physical activity (16, 25, 27). The physical activity goals are usually to achieve 150+ minutes/week of physical activity (25, 27).

Medifast





Medifast was established in 1980 by Dr. William Vitale of John Hopkins Hospital, who was using his precise formulated meal replacements (MRs) for his patients that needed to lose life-saving weight (28-29). The Medifast program is a low-calorie meal plan that is composed of

individual MRs packets, which are nutrient dense and fortified with 24 vitamins and minerals (28) that are mixed with water and refrigerated or microwaved (30). The program is assessed by a scientific advisory board, which reviews the effectiveness, safety, and nutritional benefits of products and programs (28). Medifast offers its members 6 weight-loss plans (28, 30). The 5 & 1 plan (800-1000kcal/day) (28, 30-31), the most popular Medifast weight-loss plan consists of eating 6 meals a day with a maximum of 45 minutes of exercise per day: 5 Medifast meals each ranging from 90-110 calories, low in fat, low on the glycemic index, provide an approximate 1:1 ratio of carbohydrates to proteins, and are either soy or whey protein based (29, 31), and one lean and green meal created by the member. The lean and green meal is composed of a lean meat plus a salad or vegetables, which can be consumed anytime throughout the day. Members also have the option to visit a Medifast Weight Control Center that offers weekly-individualized counseling, and support with medical oversight (29, 31).

Nutrisystem

Nutrisystem is a program based on (MRs), which serve as the core of the home-based program and are available to purchase online or by telephone (15, 26). This program was designed by an advisory council of physicians, and leading obesity researchers over 40 years, and is tailored for the busy, on-the-go client (15, 26). The Nutrisystem membership offers seven, 28-day food package options to choose from, which revolve around the glycemic index (32). Also, included in the membership are the internet-education based components (15, 26). Nutrisystem is a program that revolves around the glycemic index (32), which was initially established to help improve blood glucose control in people with diabetes. The glycemic index categorizes carbohydrate-containing foods according to their likelihood of raising blood sugar

levels. Foods that have a low glycemic index ranking claim to make a person feel fuller longer, and balance blood sugar (32).

Program	Weight Loss Claim	Length of Program	Best for Patient who	Entry Requirements	Credentials for leaders
	1-2lbs per week	Until weight-loss is met	Looking for structured program w/flexibility built in	Medical history background questionnaire	Internally trained consultants (former members successful in the program) who attend 48-hour training session with monthly education classes
	1-2lbs per week	28-day cycles until weight-loss is met	Looking for more private weight-loss experience that includes MRs diet	NONE	Internally trained internet and phone consultants
	2-5lbs-first 2 weeks 1-2lbs- after 2 weeks	Chosen program plan until weight-loss is met	Patients with a higher BMI (>30) who work with guidance and supervision of a physician	Optional health review if MWCC is available-	NONE
	1-2lbs per week	Forever- healthy behaviors are taught	Looking for weekly meetings, peer and group support, weigh in's	NONE	Lifetime members (former members who reached their goal weight and complete 6-week maintenance phase, who stay w/in 2lbs of goal) that receive leadership training

Safety of Program

Research has found that the Federal Trade Commission (FTC), the federal agency that is responsible for protecting consumers who use commercial diets, has very few federal regulations for shielding consumers from false dieting claims (33). Due to the FTC's insufficient regulation's to require the diet industry to disclose the known risks associated with dieting or provide accurate information to consumers (33), the safety of commercial weight-loss diets is unknown. For consumers to determine the safety of a commercial weight-loss program it is best to find a program that helps the individual keep the weight off for the long-term along with guidance on to how to develop healthier eating and physical activity habits and ongoing

feedback, monitoring, and support (34). Another huge factor that determines the safety of a commercial weight-loss program is the rate of weight lost; a safe rate encourages a slow and steady weight-loss of .5-2lbs a week (34). When comparing the safety of Nutrisystem, Jenny Craig, Weight Watchers, and Medifast, some of these programs didn't make the cut.

Weight Watchers encourages positive lifestyle changes through behavior and food choices like fruits and vegetables (35) along with using support, and slow and steady weight-loss (14). Jenny Craig also encourages a healthy relationship with food, an active lifestyle, and balanced approach to living, but requires its members to eat MRs with fruits, vegetables, and low-fat dairy (26), but doesn't teach behavioral changes. In a study done by Thomas and associates, some individuals' deemed commercial diets, like Jenny Craig and Nutrisystem 'unsafe', because dieting on these programs enables unhealthy eating behaviors, and can lead to poor emotional health outcomes (36). The most popular Medifast weight-loss plan known as the 5 & 1 encourages participants to avoid fruit, dairy, and starches (30), which goes against the suggestions by the American Heart Association Nutrition Committee (24). The typical weight-loss on this plan is 2-5lbs for the first two weeks (1, 28, 37). Medifast MRs are either very-low calorie or low-calorie, which promotes rapid weight-loss (38), and the program states that these type of diets require medical monitoring, but the program does not require written documentation of medical monitoring for clients to purchase MRs. It has also been found that serious complications, including death have been seen in obese individuals who consumed very-low calorie diets without medical supervision (39). To maintain Nutrisystem's MRs freshness, preservatives must be used in all meals (30). Currently, there is minimal evidence to recommend the use of commercial internet-based weight-loss interventions, like Nutrisystem, because larger controlled studies need to be done to prove effectiveness and safety (39). Along with the lack of

evidence, Attorney General Richard Blumenthal warned all commercial weight-loss companies in 1996, that they were prohibited from making any claims about the safety of a diet providing less than 1,000 calories a day, like Medifast and Nutrisystem, unless the company stated clearly that it had a physician monitoring the programs health risks (33).

Effectiveness of Program

An estimated 90% of dieters who lose more than 25 pounds regain the weight they have lost within two years, and only 1 in 50 dieters manage to keep the weight off for 7 years (20). Commercial weight-loss programs provide easily accessible options for individuals who are seeking weight-loss, and strategies to develop a balanced lifestyle that incorporates healthy eating and physical activity (25). When comparing the effectiveness of Nutrisystem, Jenny Craig, Weight Watchers, and Medifast, the results vary. Weight Watchers is a program that is built upon the theory that weight-loss can be achieved through commitment to change poor eating and exercise behaviors, along with viewing the program as a permanent way of life (20). Weight Watchers is one of the only programs that offers published peer-reviewed evidence of weight-loss effectiveness (18, 39, 48). In a study done by Lowe and associates, the reasons Weight Watchers members experience better weight-loss is due to group support, behavioral and nutritional changes, weekly weigh-in's, and incentives for weight-loss provided by peer and leader support (5, 18, 23). The Weight Watchers program was designed so that no foods are forbidden, but members are restricted by a certain amount of daily points defined by their weight-loss goal (19). Weight Watchers reported that 19.4% of the 1002 successful participants of their program who met their goal weight were still within 5 pounds of their goal weight 5 years later (25) and had significantly greater improvements in insulin and ratio of total to HDL cholesterol, along with larger reductions in waist circumference, and fat mass than those who

received standard weight-loss care (4, 14). One down side that can be seen in commercial weight-loss programs like Weight Watchers is the weigh-in aspect, because it can be seen as a source of embarrassment, which may result in discouragement for those who have extreme weight problems (5).

Based on these criteria, Jenny Craig has also found to be effective, because it removes temptation along with the burden of making food choices (20). The program offers a large variety of food options, a non-strict MR plan, after-hours hotline, an optional maintenance program, food that is easy to prepare and doesn't require refrigeration, and centers that are located nationally and internationally (26). According to Finley and associates, their study found that the Jenny Craig program could be an effective for individuals who remain in the program for at least 14 weeks, with their study finding that participants lost 7% of their baseline weight (25). According to Herriot and associates, evidence to support the use of MRs over standard low-calorie diets isn't strong (9). The biggest difficulty that participants encounter with the Jenny Craig program is when they leave the program, and have to start making food choices on their own at grocery stores and restaurants, because the program does not provide behavioral changes, nutritional information, or preparation techniques (20).

MR diet plans, like Medifast have been proven to deliver safe, effective, and sustainable weight-loss, producing numerous improvements in health outcomes (1, 31, 41, 42). Dietary interventions that apply MRs result in greater weight-loss, better compliance, insurance of adequate essential nutrients, higher satisfaction, and lower drop-out rates compared to other diets (1, 26). In addition to greater compliance weight-loss seen with MRs have also found improvements in biochemical markers, specifically the C-reactive proteins over short and long-term when used with a hypocaloric diet (1). Nutrient rich, portion controlled MRs are a strategic

tool that can assist dieters by providing convenient alternatives instead of over-sized, high fat, empty-calorie choices (1). After members have achieved weight-loss they gradually begin to decrease their use of MRs, and begin increasing calories from a variety of food groups, to be able to meet their estimated energy needs for weight maintenance (31). The problems seen with the popular 5 & 1 Medifast plan is that it is strict, and can be difficult for participants to follow and sustain, along with providing a limited variety of foods, and additional costs for lean and green meal (30).

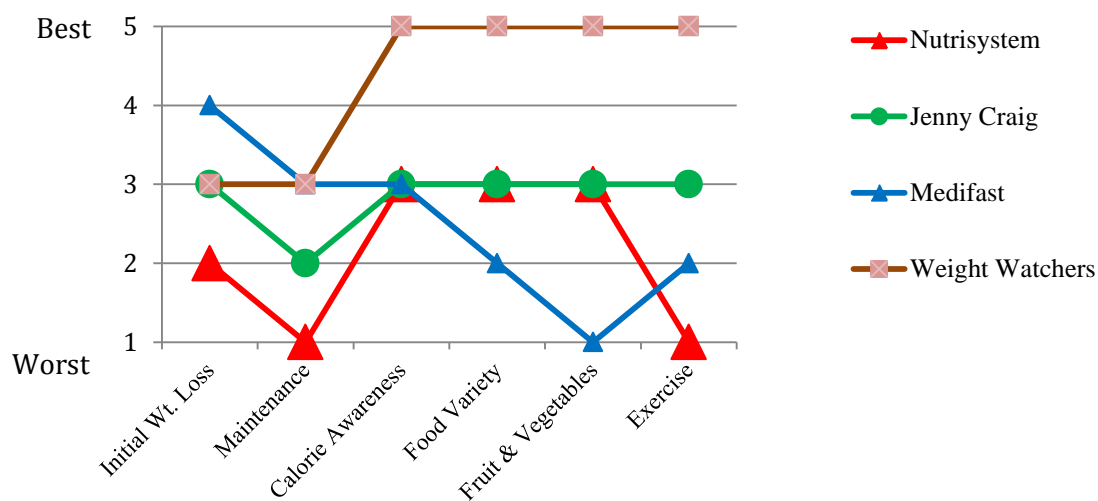
Nutrisystem has been proven to be effective for people with busy schedules or those who want private weight-loss experience, tailored to specific needs, i.e., vegetarian, lots of variety within food choices, food that doesn't have to be refrigerated or frozen and is already portioned out, and no fee for counseling services. Although, the Nutrisystem program does have some down sides like not having a physical building to go to if the consumer wants to see a doctor if side effects of diet are experienced, and no pre-physical medical background examination is performed (26). Since Nutrisystem is designed around MRs, and the glycemic index, a concern is that when foods are ranked on the index they are done so in isolation, and do not take into account how an individuals' body absorbs and handles carbohydrates, like how much is consumed, how long the food has ripened, process or preparation, the time of day it is eaten, other foods that are eaten with it, and pre-existing health conditions (32). Programs that use MRs, like Nutrisystem, were found to reduce body weight by 15-25%, but regaining the weight decreases the benefits significantly (6).

Conclusions on effectiveness

With the exception of Weight Watchers, evidence to support the effectiveness of other weight-loss programs like Jenny Craig, Nutrisystem, and Medifast are limited, due to the lack of

studies in both short and long term (39, 43). Weight-loss has been seen to lower mortality rate up to 24%. Also, losing 10% of total body weight can considerably improve blood pressure, diabetic control, lipids, and arthritis (2, 4, 13). Weight-loss interventions that involve attention to food intake such as diet alone, diet and exercise, MRs, and weight-loss medications combined with diet have been shown to produce the most promising short-term results, but then weight-loss often plateaus around 6 months (13). The goals of a successful weight management programs should be to reduce and maintain a lower body weight over a long period of time.

According to Consumer Reports, the four most popular diets weight-loss diets were ranked on whether they incorporated the variables into there program: initial weight-loss, maintenance, calorie awareness, food variety, encouragement of fruits and vegetables, and exercise, which was based on a scale of 1 to 5, 1 being the worst, 3 being neutral, and 5 being the best, as seen by the chart below (35).



Long-term results available through studies

Long-term results in weight-loss programs are typically reasonable, but most participants who lose the weight will regain it (36, 44). For many participants it is common to have

unrealistic expectations about weight-loss through weight-loss programs (44). A successful weight-loss program should have an initial goal of 5-10% reduction of weight, and for the participant to be able to maintain it for at least one year (45). When comparing the long-term results available through studies of Nutrisystem, Jenny Craig, Weight Watchers, and Medifast, some programs didn't have evidence to back up their claims.

Research has shown that a majority of diets fail based on the logic that even those who do succeed in losing weight short-term will more than likely regain it back in the long-term (46). One of the single greatest challenges in regards to weight-loss for those who are significantly obese is being able to maintain the weight-loss for the long-term (47). In a study done by Thomas and associates, participants noted that some diets, particularly those that provide pre-prepared meals were discouraging, because they didn't teach long-term behavior change (36).

For an individual to maintain weight-loss over the long-term there are factors that need to be taken into account whether a commercial weight-loss program is used or not (44): initial weight-loss, rate of weight-loss, physical activity, self-monitoring, uncontrolled factors like stress, and social support. Initial weight-loss has been identified as a predictor for later weight-loss, weight regain, and weight-loss maintenance (33, 44). Typically, when an individual loses a large amount of weight rapidly, like those seen on a diet that contains MRs (Nutrisystem, Jenny Craig, Medifast), they are more likely to regain weight (15-16, 28, 38). To combat this, these programs provide a transition into the maintenance phase by slowly decreasing the use of MRs, and increasing variety of food groups. The maintenance phase of the Medifast plan incorporates the ongoing use of MRs with conventional foods based on the individuals' estimated energy need to help maintain weight over time (31). In a study done by Coleman and associates, 154 clients who were transitioning regained a moderate amount weight, yet still had significant weight-loss

from the beginning and 91 participants who were in the maintenance phase, regained an average of 4.1lbs, but still had significant weight-loss from the beginning (31). This type of drastic weight-loss is compared to those who slowly lose weight (1-2lbs a week), like on Weight Watchers, and are more likely going to be able to maintain the weight-loss (33, 35). For the past two decades, Weight Watchers has periodically assessed and reported weight-loss maintenance among its successful members. A telephone survey conducted among 1200 successful members who reached their goal weight during 1981 to 1992 reported that 97%, 80%, and 37% stayed within 5lbs of their goal weight at 1 year, 2 years, and 5+ years (18, 23). In a two year trial study done by Heshka and associates, found that the commercial weight-loss (Weight Watchers) group maintained a weight-loss of 9-11lbs at the end of the first year, and 6-7lbs weight-loss at the end of the second year, along with improvements in waist circumference, and BMI (49). Along with slow and steady weight-loss, physical activity has been shown to relate to long-term weight-loss maintenance.

Physical activity assists weight maintenance by expending energy and improving health, (34), which commercial weight-loss programs like Weight Watchers, Medifast, and Jenny Craig emphasize (14-15, 28). The most effective strategies to maintain the slow and steady weight-loss and maintenance is thru a lower total calorie intake, smaller portion sizes, a decrease in snacking, less dietary fat (44, 50), and consumption of fruits and vegetables (24), which is also encouraged by the Weight Watchers, Jenny Craig, and Nutrisystem (14-16). Another factor that goes hand in hand with weight-loss maintenance is the act of self-monitoring, which can be done through recording food intake, physical activity, and regular weigh-ins, which helps the individual stay aware of their body weight (34). Self-monitoring can be seen in programs like Weight Watchers, Jenny Craig, and Nutrisystem (14-16). Even factors that cannot be controlled, such as stress,

effect whether an individual will maintain the weight-loss, and research shows that the best way to combat these factors is through social support (one-on-one or group focused) (51), which can be seen in commercial weight-loss programs like Weight Watchers, Jenny Craig, Medifast (14-15, 28). Due to the lack of data in regards to long-term studies effectiveness, Medifast, Jenny Craig (18), and Nutrisystem have yet to be able to prove that their program claims help their members keep their weight off.

Conclusion and Application to Practice:

Based on the three areas researched: safety, effectiveness, and long-term results available through studies, each program entailed a different strategy to help individuals get to a healthy weight. It was found that the safest program is Weight Watchers, due to its ability to provide guidance to develop healthier eating and physical activity habits with feedback, monitoring, and support (34). The weight-loss program that showed the most effective short-term weight-loss was Weight Watchers, due to interventional therapy provided, which consists of diet, exercise, and behavioral management (38). Research studies conducted on the long-term results of each of these weight-loss programs, found that Weight Watchers program had the most success in helping individuals keep the weight off long term.

As future dietitians, ideally we should not promote a specific weight-loss program to individuals. Our job is to help individuals integrate exercise and eating in moderation to maintain a healthy lifestyle, because good health is always a work in progress (52). To be successful in losing weight requires a long-term commitment to making healthy changes in eating and exercise habits (53). As food and nutrition professionals we may need to develop approaches that balance support and supervision of a structured program, that allows participants flexibility, along with control over their lifestyle change (10). With the development of healthy eating habits and

maintenance of a healthy body weight, the health risks associated with obesity can be lowered (6), but if an individual prefers to follow a program, I would suggest Weight Watchers based on my review of literature.

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